

# PRODUCT INFORMATION



## Bismuth Sulfite Agar

Cat. No. B02-108

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### DESCRIPTION

Bismuth Sulfite Agar is used for the isolation of *Salmonella* spp. A modification by Wilson and Blair, Bismuth Sulfite Agar uses Bismuth and Sodium Sulfite for the selective isolation and growth of typhoid and non-typhoid *Salmonella*. This medium is used particularly for the isolation of *Salmonella typhi* from clinical and environmental specimens including food, feces, urine, and sewage. Bismuth and brilliant green dye act as inhibitors to most enteric bacteria and Gram-positive bacteria but allow *Salmonella typhi* to produce black colonies surrounded by a metallic sheen.

#### Formula\* per Liter:

Enzymatic Digest of Casein .....	5.0g
Peptic Digest of Animal Tissue .....	5.0g
Beef Extract.....	5.0g
Dextrose.....	5.0g
Bismuth Sulfite indicator.....	8.0g
Disodium Phosphate .....	4.0g
Ferrous Sulfate.....	0.3g
Brilliant Green .....	0.025g
Agar .....	20.0g

Final pH: 7.5 ± 0.2 at 25°C

\* Grams per liter may be adjusted or the formula may be supplemented to obtain desired performance

### PREPARATION

Add 52 grams of the medium into one liter of purified water. Heat with continuous stirring. Bring to a boil for one minute and allow to cool to 45-50°C. **This medium should not be autoclaved.** Dispense into sterile petri dishes and allow to solidify.

### QUALITY CONTROL SPECIFICATIONS

1. The powder is homogeneous, free flowing and beige to greenish-beige.
2. Visually the prepared medium is green-yellow and opaque.
3. The prepared enriched medium is canary yellow and opaque.
4. Expected cultural response after 40-48 hours at 35°C.

Organism	Growth	Color Colony
<i>Escherichia coli</i> ATCC® 25922	Partial Inhibition	Brown to Green
<i>Enterococcus faecalis</i> ATCC® 29212	Inhibition	-
<i>Salmonella typhi</i> ATCC® 19430	Growth	Black with metallic sheen
<i>Salmonella typhimurium</i> ATCC® 14028	Good	Black with metallic sheen

### STORAGE

Store the sealed bottle containing the dehydrated medium at 2 to 30°C. Once opened and recapped, place the container in a low humidity environment at the same storage temperature. Protect it from moisture and light. The dehydrated medium should be discarded if it is not free flowing or if the color has changed from the original color.